

***2PF* electronics, Inc.**
catena
operating instructions

"Cartridge # MG 1001"

CATENA

A game of skill, and challenge designed for the whole family to play.

OBJECTIVE

Play ends when every square is occupied. The winner is the one with the majority of the squares in his color

VARIATIONS

APF's Catena, has 3 different variations. They are as follows:





1. **Two Players** - Each player tries to outwit his opponent. The player with the most squares at the end is the winner.
2. **One Player against Microcomputer** - Who's the better player, Man or Computer?
3. **Computer Versus Computer** - Sit back, and watch the computer play against itself. Great for learning the game, and which moves are the best under different circumstances.

To select which game you want to play, simply key in that number on your keyboard (Touching "Enter" is not necessary).

RULES OF THE GAME

The game board is constructed of 64 squares. The initial or starting board is arranged as shown in Figure 1.

FIGURE 1

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27			30	31	32
33	34	35			38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64






After the board is laid out as in Figure 1, each player then takes a turn, making one move for each turn. A move consists of placing a square of your color so that: a) it is next to an opponents square, b) the other side of your opponents square is bordered by a square of your color. When this occurs, all the surrounded opponent's squares then change to become your color.

EXAMPLE: You are RED, and your opponent is BLUE. Square 5 is in place on the board. You place your next square in Space 1.



The 3 BLUE squares now turn over, and your score has increased by 4 pieces. If a player can not capture at least one opposite square, he loses his turn, and must press the 0, and EN key, and then his opponent moves again. **Note:** You may move in any direction, horizontally, vertically, or diagonally. See Figure 2. RED can move in space 30, 44, or 46.

FIGURE 2

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27			30	31	32
33	34	35			38	39	40
41	42	43	44		46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64

More than one square can be captured on a move as long as all the rules are obeyed. APF's Microcomputer will not allow an illegal move to be made such as placing a square where it does not surround an opponent's square. It will treat this as if no entry was made, and wait for a new entry.

USING YOUR CONTROLLERS

For all games selected, the player using the control marked "R", goes first. Each square on the board has a number. To place your square on the board, you do the following:

1. Determine which square you want to occupy.
2. Enter that number on your keyboard. The number will appear on the lower right side of the screen. This will allow you to check that the correct number has been keyed-in.
3. Press the enter key (EN), the computer will now place you in that square, and turn over your opponents squares that you have surrounded. If you want to change your entry, you can press the clear-key prior to pressing the enter key, and then key in the new number.

SCORING

The score will be displayed throughout the game on the upper right side of the screen. It is kept automatically by the Microcomputer, and always places the score of the player whose turn it is on the top. The player with the most squares at the end of the game is the winner.

STRATEGY

To make your game more exciting, you may want to develop different tactics. The following are some advantages we have found, but by no means are a set of rules.

1. A move which captures the most squares may look great, but sometimes it is better to make a less spectacular, and more strategic move.
2. Corners are good moves, since they can not be recaptured by your opponent.
3. The outer edge, is also advantageous since they can only be surrounded in two directions.
4. The second row from the edge is not always a desirable move, as this gives your opponent a chance to move to the edge.

Everytime you play this game you will find new and exciting moves which help to create a different challenge.